

Notice of Allowability

Application No.

10/662,141

Examiner

Gertrude Arthur-Jeanglaude

Applicant(s)

HARTZHEIM, ANTHONY A.

Art Unit

3661



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 9/12/03.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ The drawings filed on 12 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 60104
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


GERTRUDE A. JEANGLAUDE
PRIMARY EXAMINER

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose a method for operating a gas turbine engine after the engine reaches self-sustaining speed but prior to the engine reaching synchronous speed, comprising the steps of: creating a table for looking up acceleration rates based upon a function with variables of speed of the engine rotor or turbine drive shaft, temperature of the compressed air supplied to the combustion chamber, and EGT; enabling a timing device; monitoring the EGT of the gas turbine engine, the speed and acceleration rate of the gas turbine engine, and the temperature of compressed air supplied to a combustion chamber for combustion of the gas turbine engine; requesting an acceleration rate from the table by a control system; enabling a PD controller of the control system to request a fuel valve position based upon the requested acceleration rate and an actual acceleration rate of the gas turbine engine; enabling a PID controller to request a fuel valve position based upon the defined moderate EGT and an actual EGT of the gas turbine engine; selecting the requested fuel valve position based upon the request that results in the lesser amount of fuel being supplied to the combustion chamber; exiting the control system upon the engine reaching synchronous speed; exiting the control system upon the engine not reaching synchronous speed within a predetermined time in order to shutdown and purge the combustion chamber; and repeating steps (f)-(m)until synchronous speed is reached.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Carr et al. (US5430362) disclose an engine starting system utilizing multiple controlled acceleration rates.

Uram (US4010605) discloses an accurate, stable and highly responsive gas turbine startup speed control with fixed time acceleration especially useful in combined cycle electric power plants.

O'Connor (US20030110777) discloses a method of engine starting in a gas turbine engine.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gertrude Arthur-Jeanglaude whose telephone number is (703) 308-7564. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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July 14, 2004

Gertrude A. Jeanglaude
GERTRUDE A. JEANGLAUDE
PRIMARY EXAMINER